WHAT IS CLAIMED IS:

1. A gas-electric hybrid drive system for a vehicle, the system comprising:

a first drive train including an input shaft, an output shaft and an electric motor generator interconnecting the input and output shafts with a one to one torque ratio;

a planetary gear set disposed between said first electric motor generator and said input shaft, said planetary gear set maintaining the one to one torque ratio between said input shaft, said first electric motor generator and said output shaft;

a second drive train including an electric generator interconnected to said output shaft through said planetary gear set;

a battery pack electrically connected to both the motor generators and generator; and

a controller for causing said generator to provide torque to said output shaft through the motor generator and said planetary gear set for acceleration of output shaft RPM and to charge said battery pack during deceleration and steady state output shaft RPM and for causing said motor generator to utilize excess torque of said input shaft to charge said battery pack.

2. The system according to claim 1 further comprising an engine for driving said input shaft.

3. The system according to claim 2 further comprising a throttle control for controlling engine RPM input shaft torque.

4. The system according to claim 3 wherein said throttle control is connected to said controller for providing input thereto in order for the controller to effect battery pack charging during acceleration, deceleration and steady output shaft RPM.

5. The system according to claim 4 wherein said engine is a gasoline engine.

6. A gas-electric hybrid drive system for a vehicle, the system comprising:

a first drive train including an input shaft, an output shaft and a electric motor generator interconnecting the input and output shafts with a one to one torque ratio;

a planetary gear set disposed between said electric motor generator and said input shaft, said planetary gear set maintaining the one to one torque ratio between said input shaft, said electric motor generator and said output shaft;

a second drive train including an electric generator interconnected to said output shaft through said planetary gear set;

an engine interconnected with said input shaft;

a battery pack electrically connected to both the motor generator and generator; and

a controller for causing said generator to provide torque to said output shaft through the motor generator and said planetary gear set for acceleration of output shaft RPM and to charge said battery pack during deceleration and steady state output shaft RPM and for causing said motor generator to utilize excess torque of said input shaft to charge said battery pack.

7. The system according to claim 6 further comprising a throttle control for controlling engine RPM input shaft torque.

8. The system according to claim 7 wherein said throttle control is connected to said controller for providing input thereto in order for the controller to effect battery pack charging during acceleration, deceleration and steady output shaft RPM.

9. The system according to claim 8 wherein said engine is a gasoline engine.